

Transportation Compliance Evaluation/Assistance Program

2. Hazardous and Radioactive Materials Packaging

Revision 1, July 2000

Standard: A documented packaging procurement/selection program, which includes written policies and procedures (e.g., quality assurance), that identifies steps taken to ensure selection of an appropriate packaging for the hazardous or radioactive material to be transported. These policies and procedures must be in compliance with the requirements of applicable international, federal, state, tribal, and local laws, rules, and regulations and DOE Orders and policy.

References: 10 CFR 71, 10 CFR 830.120, 49 CFR 173, 174, 175, 176, 177, 178, DOE Orders 414.1, 460.1A, and 460.2, Implementation Guides 414.1, 460.1A and 460.2, and CRD 414.1, 460.1A and 460.2, CWG Report

Self-Assessment/Evaluation Actions	RESPONSE			Comment
	Y	N	N/A	
A. GENERAL QUESTION SECTION				
1. Do the following DOE Orders apply to your contract?				
a. DOE Order 414.1, Quality Assurance?				
b. DOE Order 460.1A, Packaging and Transportation Safety?				
c. DOE Order 460.2, Departmental Materials Transportation and Packaging Management?				
If you have answered yes to any of the questions above, please answer all the applicable questions contained in this checklist.				
B. HAZARDOUS MATERIALS PACKAGING				
1. Procurement				
a. Is a system in place that ensures the packaging to be procured is the authorized packaging needed?				
b. For the procurement of packages/containers, are the operational (loading, handling, unloading, and storing) parameters included in the specification of the RFP? [CWG Report]				
c. Is a system in place to ensure that the proper approval authority process has taken place for the procurement of packages/containers?				

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2. Selection of Packagings				
a. Is a system in place that ensures the packaging selected is a DOT authorized packaging for material(s) to be shipped? [49 CFR 173.22]				
b. Is a system in place that ensures hazardous materials packaging meets the general packaging and packages requirements? [49 CFR 173.24, 173.24(a), and 173.24(b)]				
i. Are there procedures in place that ensure the filling, outage, closing, venting, and operational instructions from the packaging manufacturer are utilized?				
ii. Are there procedures in place that ensure the compatibility of lading materials with the packaging addressed?				
iii. When making waste shipments, are packages checked for free liquids?				
c. Is a system in place to meet reporting requirements found in DOE Guide 460.2 (6.2.1 a - l) for existing and reusable packagings to EM-76 (NTP-A) on an annual basis?				
d. Is a system in place to provide information on an annual basis on any current or forecasted needs for existing, new, or improved packagings, or for supporting packaging technology development, to EM-76 (NTP-A)? [DOE Guide 460.2, 6.3]				
C. RADIOACTIVE MATERIALS PACKAGING				
1. Procurement				
a. Is a system in place that ensures the packaging procured meets the current requirements for the authorized packaging needed?				
b. Is a system in place that ensures procurement receives support information from operations with regard to the procurement of radioactive material packagings?				

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c. For all radioactive materials packaging, does the contractor:				
i. Evaluate packaging suppliers?				
ii. Ensure packaging specifications meet current quality and design construction requirements?				
iii. Ensure packaging specification requirements are met through receiving inspections?				
2. Selection of Packagings				
a. Is a system in place that ensures the packaging selected is a DOT authorized packaging for the material(s) to be shipped? [49 CFR 173.22, DOE Order 460.1A]				
b. Is a system in place that ensures Class 7 packaging meets the general packaging and packages requirements? [49 CFR 173.24 and 173.410, DOE Order 460.1A]				
c. Is a system in place that ensures an Industrial packaging meets minimum design and test requirements and that documentation is available on file with the shipper? [49 CFR 173.410 and 411, DOE Order 460.1A]				
d. Is a system in place that ensures a Type A packaging meets minimum design and test requirements, that documentation is on file with the shipper, and is authorized per the Type A packaging documentation for the material contained? [49 CFR 173.410 and 412, DOE Order 460.1A]				
e. Is a system in place that ensures a Type B packaging meets minimum design and test requirements, that documentation is available on file with the shipper, and is authorized per the Type B packaging documentation for the material contained? [49 CFR 173.413 and 416, DOE Order 460.1A]				

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f. Are Class 7 (radioactive) Type B or fissile material packagings durably and legibly marked on the outside with the identification markings specified by the U.S. NRC or DOE Certificate of Compliance? [49 CFR 173.471(b), DOE Order 460.1A]				
g. Is a system in place that ensures a fissile Type A or Type B packaging meets minimum design and test requirements, that documentation is available on file with the shipper, and is authorized per the Type A and/or Type B packaging documentation for the material contained? [49 CFR 173.417, DOE Order 460.1A]				
h. If a Type A, Type B, Type B(U), Type B(M), including fissile material packagings, is selected, does the packaging display required packaging certification information on the packaging? [10 CFR 71, 49 CFR 178, DOE Order 460.1A]				
4. Packaging Operations				
a. Are there procedures in place that provide instruction in handling a given radioactive material packaging? [DOE Order 460.1A]				
b. Are there procedures in place that provide instruction in filling, closing and operational configuration (including gaskets, equipment, valves, moderators, etc.) of each given radioactive material packaging? [49 CFR 173.22, 24, DOE Order 460.1A]				
c. Is a system in place to meet additional record-keeping requirements of DOE Guide 460.2 (6.1b) for each shipment containing radioactive material?				
d. Are procedures in place that provide instruction in loading and unloading of a given radioactive material packaging to/from a transport vehicle? [49 CFR 173.30, and modal requirements in 174, 175, 176, and 177, and DOE Order 460.1A]				
e. Is a system in place that ensures a quality control inspection of packaging operations for radioactive material packages? [49 CFR 173.474, and 475, DOE Order 460.1A]				

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f. Is the packaging selected compatible with the properties of the final waste form, including any anticipated reaction or separation by-products? [49 CFR 173.24, CWG Report]				
g. Are necessary precautionary actions taken to prevent packaging damage, in the final waste form, from objects capable of damaging or penetrating the package? [49 CFR 173.24(b), CWG Report]				